ENERGY AND ENVIRONMENT CABINET

Department for Environmental Protection

Division of Water

(Amended After Comments)

401 KAR 5:080. Criteria and standards for the Kentucky Pollutant Discharge Elimination System.

RELATES TO: KRS 224.10-100, 224.16-050, 224.18-760, 224.70-100, 224.70-110, 40 C.F.R. 122.21, 122.29, 125.1, 125.2 125.3, 125.10, 125.11, 125.31, 125.32, 125.70, 125.71, 125.72, 125.73, EO 2008-507, 2008-531

STATUTORY AUTHORITY: KRS 224.10-100, **224.10-110,** 224.16-050, 224.70-100, 224.70-110, 40 C.F.R. 122, 125

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100 authorizes the [~~Environmental and Public Protection~~] cabinet to issue, continue in effect, revoke, modify, suspend, or deny under **[~~such~~]** conditions as the cabinet may prescribe, permits to discharge into any waters of the Commonwealth. KRS 224.16-050 authorizes [~~provides that~~] the cabinet to [~~may~~] issue federal permits pursuant to 33 U.S.C. [~~USC Section~~] 1342(b) of the Federal Water Pollution Control Act, [~~(~~] 33 U.S.C. [~~USC Section~~] 1251- 1387, [~~et seq.)~~] subject to the conditions imposed in 33 U.S.C. [~~USC Section~~] 1342(b) and (d) and [~~. This section further provides~~] that an exemption [~~any exemptions~~] granted in the issuance of a KPDES permit [~~permits~~] shall be pursuant to 33 U.S.C. [~~USC Sections~~] 1311, 1312, and 1326(a). EO 2008-507 and 2008-531, effective June 16, 2008, abolish the Environmental and Public Protection Cabinet and establish the new Energy and Environment Cabinet. This administrative regulation establishes [~~sets forth~~] the criteria and

standards for the KPDES permitting system.

Section 1. Definitions. Definitions established in 40 C.F.R. 122.2 shall apply for the interpretation of the federal regulations cited within this administrative regulation.

Section 2. Criteria and standards for technology-based treatment standards shall be as established in:

(1) 40 C.F.R. 125.1**, effective July 1, 2008**;

(2) 40 C.F.R. 125.2**, effective July 1, 2008**; and

(3) 40 C.F.R. 125**, effective July 1, 2008**.3.

Section 3. Criteria for issuance of permits to aquaculture projects shall be as established in:

(1) 40 C.F.R. 125.10**, effective July 1, 2008**; and

(2) 40 C.F.R. 125.11**, effective July 1, 2008**.

Section 4. Criteria and standards for determining fundamentally different factors shall be as established in:

(1) 40 C.F.R. 125.30**, effective July 1, 2008**;

(2) 40 C.F.R. 125.31**, effective July 1, 2008**; and

(3) 40 C.F.R.125.32**, effective July 1, 2008**.

Section 5. Criteria for determining alternative effluent limitations for the control of a thermal component of a discharge shall be as established in:

(1) 40 C.F.R. 125.70**, effective July 1, 2008**;

(2) 40 C.F.R. 125.71**, effective July 1, 2008**;

(3) 40 C.F.R. 125.72**, effective July 1, 2008**; and

(4) 40 C.F.R. 125.73**, effective July 1, 2008**.

Section 6. Special KPDES program requirements related to new sources and new discharges

shall be as established in 40 C.F.R. 122.29**, effective July 1, 2008**.

Section 7.

[~~Criteria and Standards for Technology-based Treatment Requirements. (1) Purpose and scope. This section establishes criteria and standards for the imposition of technology-based treatment requirements in KPDES permits including the application of EPA promulgated effluent limitations and case-by-case determinations of effluent limitations.~~

~~(2) Compliance with technology-based treatment requirements in KPDES permits.~~

~~(a) General. Technology-based treatment requirements represent the minimum level of control that shall be imposed in a KPDES permit. Permits shall contain the following technology-based treatment requirements in accordance with the deadlines indicated herein:~~

~~1. For POTWs effluent limitations based upon:~~

~~a. Secondary treatment as required by CWA Section 301(b)(1)(B) (33 USC Section 1311(b)(1)(B)) - from date of permit issuance; and~~

~~b. The best practicable waste treatment technology as required by CWA Section 301(b)(1)(A) (33 USC Section (b)(1)(A)) - not later than July 1, 1983; and~~

~~2. For dischargers other than POTWs, except as otherwise provided in the KPDES administrative regulations, effluent limitations requiring:~~

~~a. The best practicable control technology currently available (BPT):~~

~~(i) For effluent limitations promulgated under CWA Section 304(b) after January 1, 1982 and requiring a level of control substantially greater or based on fundamentally different control technology than under permits for an industrial category issued before this date, compliance as expeditiously as practicable but not later than three (3) years after the date the limitations are promulgated under CWA Section 304(b) and not later than March 31, 1989;~~

~~(ii) For effluent limitations established on a case-by-case basis based on best professional judgment (BPJ) under paragraph (c)2 of this subsection in a permit issued after February 4, 1987, compliance as expeditiously as practicable but not later than three (3) years after the date the limitations are established and not later than March 31, 1989; or~~

~~(iii) For all other BPT effluent limitations compliance is required from the date of permit issuance.~~

~~b. For conventional pollutants, the best conventional pollutant control technology (BCT):~~

~~(i) For effluent limitations promulgated under CWA Section 304(b), as expeditiously as practicable but not later than three (3) years after the date the limitations are promulgated under CWA Section 304(b), and not later than March 31, 1989; or~~

~~(ii) For effluent limitations established on a case-by-case basis based on BPJ under paragraph (c)2 of this subsection, in a permit issued after February 4, 1987, compliance as expeditiously as practicable but not later than three (3) years after the date the limitations are established and not later than March 31, 1989;~~

~~c. For all toxic pollutants referred to in Section 6 of this administrative regulation the best available technology economically achievable (BAT):~~

~~(i) For effluent limitations established under CWA Section 304(b), as expeditiously as practicable but not later than three (3) years after the date the limitations are promulgated under CWA Section 304(b), and not later than March 31, 1989; or~~

~~(ii) For permits issued on a case-by-case basis based on BPJ under paragraph (c)2 of this subsection after February 4, 1987 establishing BAT effluent limitations, compliance is required as expeditiously as practicable but not later than three (3) years after the date the limitations are established, and not later than March 31, 1989.~~

d. For all toxic pollutants other than those listed in Section 6 of this administrative regulation, effluent limitations based on BAT:

(i) For effluent limitations promulgated under CWA Section 304(b) compliance is required as expeditiously as practicable, but not later than three (3) years after the date the limitations are promulgated under CWA Section 304(b) and not later than March 31, 1989; or

(ii) For permits issued on a case-by-case BPJ basis under paragraph (c)2 of this subsection after February 4, 1987 establishing BAT effluent limitations, compliance is required as expeditiously as practicable but not later than three (3) years after the date the limitations are established and not later than March 31, 1989.

e. For all pollutants which are neither toxic nor conventional pollutants, effluent limitations based on BAT.

(i) For effluent limitations promulgated under CWA Section 304(b) compliance is required as expeditiously as practicable, but not later than three (3) years after the date the limitations are established and not later than March 31, 1989; or

(ii) For permits issued on a case-by-case BPJ basis under paragraph (c)2 of this subsection after February 4, 1987 establishing BAT effluent limitations, compliance is required as expeditiously as practicable but not later than three (3) years after the date the limitations are established and not later than March 31, 1989.

(b) Variances and extensions.

1. The following variance from technology-based treatment requirements is authorized by KRS Chapter 224 and may be applied for under 401 KAR 5:055. For dischargers other than POTWs:

a. Economic variance from BAT, as indicated in 401 KAR 5:055, Section 7(1);

b. Thermal variance from BPT, BCT, and BAT, under Section 4 of this administrative

regulation, may be authorized.

2. An extension of the BAT deadline may be applied for under 401 KAR 5:055, Section 7(3) for dischargers other than POTWs, for use of innovative technology.

(c) Methods of imposing technology-based treatment requirements in permits. Technology-based treatment requirements may be imposed through one (1) of the following three (3) methods:

1. Application of EPA promulgated effluent limitations to dischargers by category or subcategory. These effluent limitations are not applicable to the extent that they have been withdrawn by EPA or remanded. In the case of a court remand, determinations underlying effluent limitations shall be binding in permit issuance proceedings where those determinations are not required to be reexamined by a court remanding the regulations. In addition, dischargers may seek fundamentally different factors variances from these effluent limitations under 401 KAR 5:055, and Section 3 of this administrative regulation.

2. On a case-by-case basis under CWA Section 402(a)(1) (33 USC Section 1342(a)(1)), to the extent that EPA-promulgated effluent limitations are inapplicable. The cabinet shall apply the appropriate factors listed in paragraph (d) of this subsection and shall consider:

a. The appropriate technology for the category or class of point sources of which the applicant is a member, based upon all available information; and

b. Any unique factors relating to the applicant.

3. Through a combination of the methods in paragraph (c)1 and 2 of this subsection. Where EPA-promulgated effluent limitations guidelines only apply to certain aspects of the discharger's operation, or to certain pollutants, other aspects or activities are subject to administrative regulation on a case-by-case basis in order to carry out the provisions of KRS Chapter 224.

4. Limitations developed under paragraph (c)2 of this subsection may be expressed, where

~~appropriate, in terms of toxicity if it is shown that the limits reflect the appropriate requirements of KRS Chapter 224.~~

~~(d) In setting case-by-case limitations pursuant to paragraph (c) of this subsection, the cabinet shall consider the following factors:~~

~~1. For BPT requirements:~~

~~a. The total cost of application of technology in relation to the effluent reduction benefits to be achieved from such application;~~

~~b. The age of equipment and facilities involved;~~

~~c. The process employed;~~

~~d. The engineering aspects of the application of various types of control techniques;~~

~~e. Process changes; and~~

~~f. Nonwater quality environmental impact (including energy requirements).~~

~~2. For BCT requirements:~~

~~a. The reasonableness of the relationship between the costs of attaining a reduction in effluent and the effluent reduction benefits derived;~~

~~b. The comparison of the cost and level of reduction of the pollutants from the discharge from publicly owned treatment works to the cost and level of reduction of the pollutants from a class or category of industrial sources;~~

~~c. The age of equipment and facilities involved;~~

~~d. The process employed;~~

~~e. The engineering aspects of the application of various types of control techniques;~~

~~f. Process changes; and~~

~~g. Nonwater quality environmental impact (including energy requirements).~~

3. For BAT requirements:

a. The age of equipment and facilities involved;

b. The process employed;

c. The engineering aspects of the application of various types of control techniques;

d. Process changes;

e. The cost of achieving such effluent reduction; and

f. Nonwater quality environmental impact (including energy requirements).

(e) Technology-based treatment requirements are applied prior to or at the point of discharge.

(f) Technology-based treatment requirements shall not be satisfied through the use of "nontreatment" techniques such as flow augmentation and in-stream mechanical aerators. However, these techniques may be considered as a method of achieving water quality standards on a case-by-case basis when:

1. The technology-based treatment requirements applicable to the discharge are not sufficient to achieve the standards;

2. The discharger agrees to waive any opportunity to request a variance under 401 KAR 5:055, Section 3; and

3. The discharger demonstrates that such a technique is the preferred environmental and economic method to achieve the standards after consideration of alternatives such as advanced waste treatment, recycle and reuse, land disposal, changes in operating methods, and other available methods.

(g) Technology-based effluent limitations shall be established under this administrative regulation for solids, sludges, filter backwash, and other pollutants removed in the course of treatment or control of wastewaters in the same manner as for other pollutants.

(h)1. The cabinet may set a permit limit for a conventional pollutant at a level more stringent than the best conventional pollution control technology (BCT), or a limit for a nonconventional pollutant which shall not be subject to modification where:

a. Effluent limitations guidelines specify the pollutant as an indicator for a toxic pollutant; or

b.(i) The limitation reflects BAT-level control of discharges of one (1) or more toxic pollutants which are present in the waste stream, and a specific BAT limitation upon the toxic pollutants is not feasible for economic or technical reasons;

(ii) The permit identifies which toxic pollutants are intended to be controlled by use of the limitation; and

(iii) The fact sheet required by 401 KAR 5:075, Section 4, sets forth the basis for the limitation, including a finding that compliance with the limitations will result in BAT-level control of the toxic pollutant discharges identified in paragraph (h)1b(ii) of this subsection, and a finding that it would be economically or technically infeasible to directly limit the toxic pollutants.

2. The cabinet may set a permit limit for a conventional pollutant at a level more stringent than BCT when:

a. Effluent limitations guidelines specify the pollutant as an indicator for a hazardous substance; or

b.(i) The limitation reflects BAT-level control of discharges, or an appropriate level of one (1) or more hazardous substances which are present in the waste stream, and a specific BAT, or other appropriate limitation upon the hazardous substances which are present in the waste stream, and a specific BAT, or other appropriate limitation upon the hazardous substance is not feasible for economic or technical reasons;

(ii) The permit identifies which hazardous substances are intended to be controlled by use of

~~the limitation; and~~

~~(iii) The fact sheet, required by 401 KAR 5:075, Section 4, sets forth the basis for the limitation, including a finding that compliance with the limitations will result in BAT-level, or other appropriate level, control of the hazardous substances discharges identified in paragraph (h)1b(ii) of this subsection, and a finding that it would be economically or technically infeasible to directly limit the hazardous substances.~~

~~c. Hazardous substances which are also toxic pollutants are subject to paragraph (h)1 of this subsection.~~

~~3. The cabinet shall not set a more stringent limit under the preceding paragraphs if the method of treatment required to comply with the limit differs from that which would be required if the toxic pollutants or hazardous substances controlled by the limit were limited directly.~~

~~4. Toxic pollutants identified under paragraph (h)1 of this subsection remain subject to 401 KAR 5:065, Section 1(15), which requires notification of increased discharges of toxic pollutants above levels reported in the application form.~~

~~Section 2. Criteria for Issuance of Permits to Aquaculture Projects. (1) Purpose and scope.~~

~~(a) This section establishes guidelines for approval of any discharge of pollutants associated with an aquaculture project.~~

~~(b) This section authorizes, on a selective basis, controlled discharges which would otherwise be unlawful under KRS Chapter 224 in order to determine the feasibility of using pollutants to grow aquatic organisms which can be harvested and used beneficially.~~

~~(c) Permits issued for discharges into aquaculture projects under this section are KPDES permits and are subject to all applicable requirements. Any permit shall include such conditions, including monitoring and reporting requirements, as are necessary to comply with the KPDES~~

~~administrative regulations. Technology-based effluent limitations need not be applied to discharges into the approved project except with respect to toxic pollutants.~~

~~(2) Criteria.~~

~~(a) KPDES permits shall not be issued to an aquaculture project unless:~~

~~1. The cabinet determines that the aquaculture project:~~

~~a. Is intended by the project operator to produce a crop which has significant direct or indirect commercial value, or is intended to be operated for research into possible production of such a crop; and~~

~~b. Does not occupy a designated project area which is larger than can be economically operated for the crop under cultivation or than is necessary for research purposes.~~

~~2. The applicant has demonstrated, to the satisfaction of the cabinet, that the use of the pollutant to be discharged to the aquaculture project shall result in an increased harvest of organisms under culture over what would naturally occur in the area;~~

~~3. The applicant has demonstrated, to the satisfaction of the cabinet, that if the species to be cultivated in the aquaculture project is not indigenous to the immediate geographical area, there shall be minimal adverse effects on the flora and fauna indigenous to the area, and the total commercial value of the introduced species is at least equal to that of the displaced or affected indigenous flora and fauna;~~

~~4. The cabinet determines that the crop shall not have a significant potential for human health hazards resulting from its consumption; and~~

~~5. The cabinet determines that migration of pollutants from the designated project area to waters of the Commonwealth outside of the aquaculture project will not cause or contribute to a violation of the applicable standards and limitations applicable to the supplier of the pollutant that~~

would govern if the aquaculture project were itself a point source. The approval of an aquaculture project shall not result in the enlargement of a preexisting mixing zone area beyond what had been designated for the original discharge.

(b) Permits shall not be issued for any aquaculture project in conflict with a water quality management plan or an amendment to a plan approved by EPA.

(c) Designated project areas shall not include a portion of a body of water large enough to expose a substantial portion of the indigenous biota to the conditions within the designated project area.

(d) Any pollutants not required by or beneficial to the aquaculture crop shall not exceed applicable standards and limitations when entering the designated project area.

Section 3. Criteria and Standards for Determining Fundamentally Different Factors. (1) Purpose and scope.

(a) This section establishes the criteria and standards to be used in determining whether effluent limitations or pretreatment standards alternative to those required by promulgated EPA effluent limitations guidelines and categorical pretreatment standards, hereinafter referred to as "national limits," shall be imposed on a discharger because factors relating to the discharger's facilities, equipment, processes or other factors related to the discharger are fundamentally different from the factors considered by EPA in development of the national limits. This section applies to all national limits promulgated by EPA except for best practicable treatment standards for steam-electric plants.

(b) This case-by-case review shall not be done unless data specific to that discharger indicate they present factors fundamentally different from those considered by EPA in developing the limit at issue. Any interested person asserting that factors relating to a discharger's facilities, equipment,

~~processes, or other facilities related to the discharger are fundamentally different from the factors considered during the development of the national limits may request a fundamentally different factors variance under 401 KAR 5:055, Section 3. In addition, such a variance may be proposed by the cabinet in the draft permit.~~

~~(2) Criteria.~~

~~(a) A request for the establishment of effluent limitations under this section, fundamentally different factors variance, shall not be approved unless:~~

~~1. There is an applicable national limit which is applied in the permit and specifically controls the pollutant for which alternative effluent limitations or standards have been requested;~~

~~2. Factors relating to the discharge controlled by the permit are fundamentally different from those considered by EPA in establishing the national limits; and~~

~~3. The request for alternative effluent limitations or standards is made in accordance with the procedural requirements of 401 KAR 5:075.~~

~~(b) A request for the establishment of effluent limitations less stringent than those required by national limits guidelines shall not be approved unless:~~

~~1. The alternative effluent limitation requested is not less stringent than justified by the fundamental difference;~~

~~2. The alternative effluent limitation or standard shall ensure compliance with the KPDES administrative regulations and KRS Chapter 224; and~~

~~3. Compliance with the national limits, either by using the technologies upon which the national limits are based or by other control alternative, would result in:~~

~~a. A removal cost wholly out of proportion to the removal cost considered during development of the national limits; or~~

~~b. A nonwater quality environmental impact, including energy requirements, fundamentally more adverse than the impact considered during development of the national limits.~~

~~(c) A request for alternative limits more stringent than required by national limits shall not be approved unless:~~

~~1. The alternative effluent limitation or standard requested is no more stringent than justified by the fundamental difference; and~~

~~2. Compliance with the alternative effluent limitation or standard would not result in:~~

~~a. A removal cost wholly out of proportion to the removal cost considered during development of the national limits; or~~

~~b. A nonwater quality environmental impact, including energy requirements, fundamentally more adverse than the impact considered during development of the national limits.~~

~~(d) Factors which may be considered fundamentally different are:~~

~~1. The nature or quality of pollutants contained in the raw waste load of the discharger's process wastewater;~~

~~2. The volume of the discharger's process wastewater and effluent discharged;~~

~~3. Nonwater quality environmental impact of control and treatment of the discharger's raw waste load;~~

~~4. Energy requirements of the application of control and treatment technology;~~

~~5. Age, size, land availability, and configuration as they relate to the discharger's equipment or facilities, processes employed, process changes, and engineering aspects of the application of control technology; and~~

~~6. Cost of compliance with required control technology.~~

~~(e) A variance request or portion of such a request under this section shall not be granted on~~

any of the following grounds:

1. The infeasibility of installing the required waste treatment equipment within the time allowed in Section 1 of this administrative regulation;

2. The assertion that the national limits cannot be achieved with the appropriate waste treatment facilities installed, if such assertion is not based on factors listed in paragraph (d) of this subsection;

3. The discharger's ability to pay for the required waste treatment; or

4. The impact of a discharge on local receiving water quality.

(3) Method of application.

(a) A written request for a variance under this administrative regulation shall be submitted in duplicate to the cabinet in accordance with 401 KAR 5:075.

(b) The burden is on the person requesting the variance to demonstrate that:

1. Factors listed in subsection (2) of this section regarding the discharger's facility are fundamentally different from the factors EPA considered in establishing the national limits. The requester shall refer to all relevant material and information, such as the published guideline regulations development document, all associated technical and economic data collected for use in developing each national limit, all records of legal proceedings, and all written and printed documentation including records of communication, etc., relevant to the regulations which are kept on public file by the EPA;

2. The alternative limitations requested are justified by the fundamental difference alleged in subparagraph 1 of this paragraph; and

3. The appropriate requirements of subsection (2) of this section have been met.

Section 4. Criteria for Determining Alternative Effluent Limitations. (1) Purpose and scope.

~~The factors, criteria and standards for the establishment of alternative thermal effluent limitations described in CWA Section 316(a) (33 USC Section 1326(a)) shall also be used in KPDES permits and shall be referred to as 401 KAR 5:055, Section 7(4), variances.~~

~~(2) Early screening of applications for 401 KAR 5:055, Section 7(4), variances.~~

~~(a) Any initial application for the variance shall include the following early screening information:~~

~~1. A description of the alternative effluent limitation requested;~~

~~2. A general description of the method by which the discharger proposes to demonstrate that the otherwise applicable thermal discharge effluent limitations are more stringent than necessary;~~

~~3. A general description of the type of data, studies, experiments, and other information which the discharger intends to submit for the demonstration; and~~

~~4. Data and information as may be available to assist the cabinet in selecting the appropriate representative important species.~~

~~(b) After submitting the early screening information under paragraph (a) of this subsection, the discharger shall consult with the cabinet at the earliest practicable time, but not later than thirty (30) days after the application is filed, to discuss the discharger's early screening information. Within sixty (60) days after the application is filed, the discharger shall submit for the cabinet's approval a detailed plan of study which the discharger will undertake to support its 401 KAR 5:055, Section 7(4), demonstration. The discharger shall specify the nature and extent of the following type of information to be included in the plan of study: biological, hydrographical, and meteorological data; physical monitoring data; engineering or diffusion models; laboratory studies; representative important species; and other relevant information. In selecting representative important species, special consideration shall be given to species mentioned in applicable water~~

quality standards. After the discharger submits its detailed plan of study, the cabinet shall either approve the plan or specify any necessary revisions to the plan. The discharger shall provide any additional information or studies which the cabinet subsequently determines necessary to support the demonstration, including such studies or inspections as may be necessary to select representative important species. The discharger shall provide any additional information or studies which the discharger contends are appropriate to support the demonstration.

(c) Any application for the renewal of 401 KAR 5:055, Section 7(4), variance shall include only the information described in paragraphs (a) and (b) of this subsection and 401 KAR 5:075 as the cabinet requests within sixty (60) days after receipt of the permit application.

(d) The cabinet shall promptly notify the Secretary of the U.S. Department of Commerce, the Secretary of the U.S. Department of the Interior, and any affected state of the filing of the request and shall consider any timely recommendations they submit.

(e) In making the demonstration the discharger shall consider any information or guidance published by EPA to assist in making the demonstrations.

(f) If an applicant desires a ruling on a 401 KAR 5:055, Section 7(4), application before the ruling on any other necessary permit terms and conditions, it shall so request upon filing its application under paragraph (a) of this subsection. This request will be granted or denied at the discretion of the cabinet.

(3) Criteria and standards for the determination of alternative effluent limitations.

(a) Thermal discharge effluent limitations or standards established in permits may be less stringent than those required by applicable standards and limitations if the discharger demonstrates to the satisfaction of the cabinet that the effluent limitations are more stringent than necessary to assure the protection and propagation of a balanced, indigenous community of shellfish, fish, and

wildlife in and on the body of water into which the discharge is made. This demonstration shall show that the alternative effluent limitation desired by the discharger, considering the cumulative impact of its thermal discharge together with all other significant impacts on the species affected, shall assure the protection and propagation of a balanced indigenous community of shellfish, fish, and wildlife in and on the body of water into which the discharge is to be made.

(b) In determining if the protection and propagation of the affected species will be assured, the cabinet may consider any information contained or referenced in any applicable thermal water quality criteria and information published by the administrator under CWA Section 304(a) (33 USC Section 1314(a)) or any other information it deems relevant.

(c) Existing dischargers may base their demonstration upon the absence of prior appreciable harm in lieu of predictive studies. Any demonstrations shall show:

1. That no appreciable harm has resulted from the normal component of the discharge, taking into account the interaction of such thermal component with other pollutants and the additive effect of other thermal sources to a balanced, indigenous community of shellfish, fish, and wildlife in and on the body of water into which the discharge has been made; or

2. That despite the occurrence of previous harm, the desired alternative effluent limitations, or appropriate modifications thereof, shall nevertheless assure the protection and propagation of a balanced, indigenous community of shellfish, fish, and wildlife in and on the body of water into which the discharge is made.

(d) In determining if prior appreciable harm has occurred, the cabinet shall consider the length of time in which the applicant has been discharging and the nature of the discharge.

Section 5. New Sources and New Dischargers. (1) Criteria for new source determination.

(a) Except as otherwise provided in an applicable new source performance standard, a source is

a "new source" if it meets the definition of "new source" in 401 KAR 5:001; and:

1. It is constructed at a site at which no other source is located;

2. It totally replaces the process or production equipment that causes the discharge of pollutants at an existing source; or

3. Its processes are substantially independent of an existing source at the same site. In determining whether these processes are substantially independent, the cabinet shall consider such factors as the extent to which the new facility is integrated with the existing plant, and the extent to which the new facility is engaged in the same general type of activity as the existing source.

(b) A source meeting the requirements of paragraph (a) of this subsection is a new source only if a new source performance standard is independently applicable to it. If there is no independently applicable standard, the source is a new discharger. See 401 KAR 5:001.

(c) Construction on a site at which an existing source is located results in a modification subject to 401 KAR 5:070, Section 6 rather than a new source or a new discharger if the construction does not create a new building, structure, facility, or installation meeting the criteria of paragraph (a) of this subsection but otherwise alters, replaces, or adds to existing process or production equipment.

(d) Construction of a new source as defined under 401 KAR 5:001 has commenced if the owner or operator has:

1. Begun or caused to begin as part of a continuous on-site construction program:

a. Any placement, assembly, or installation of facilities or equipment; or

b. Significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or

2. Entered into a binding contractual obligation for the purchase of facilities or equipment

which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be revoked or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under this subsection.

(e) When a KPDES permit issued to a source with a "protection period" under subsection (2)(a) of this section will expire on or after the expiration of the protection period, that permit shall require the owner or operator of the source to comply with the requirements of Section 1 of this administrative regulation and CWA Section 301 (33 USC Section 1311) and any other then applicable CWA requirements immediately upon the expiration of the protection period. No additional period for achieving compliance with these requirements shall be allowed except when necessary to achieve compliance with requirements promulgated less than three (3) years before the expiration of the protection period.

(f) The owner or operator of a new source, a new discharger which commenced discharge after August 13, 1979, or a recommencing discharger shall install and have in operating condition, and shall "start-up" all pollution control equipment required to meet the conditions of its permits before beginning to discharge. Within the shortest feasible time (not to exceed ninety (90) days), the owner or operator shall meet all permit conditions. The requirements of this subsection do not apply if the owner or operator is issued a permit containing a compliance schedule under 401 KAR 5:070, Section 2(1).

(g) After the effective date of new source performance standards, no owner or operator shall operate the source in violation of those standards applicable to the source.

(2) Effect of compliance with new source performance standards. The provisions of this subsection do not apply to existing sources which modify their pollution control facilities or construct new pollution control facilities and achieve performance standards, but which are neither

new sources or new dischargers or otherwise do not meet the requirements of this subsection.

(a) Except as provided in paragraph (b) of this subsection, any new discharger, the construction of which commenced after October 18, 1972, or new source which meets the applicable promulgated new source performance standards before the commencement of discharge, shall not be subject to any more stringent new source performance standards or to any more stringent technology based standards under CWA Section 301(b)(2) (33 USC Section 1311(b)(2)) for the soonest ending of the following periods:

1. Ten (10) years from the date that construction is completed;

2. Ten (10) years from the date the source begins to discharge process or other nonconstruction related wastewater; or

3. The period of depreciation or amortization of the facility for the purposes of Internal Revenue Code Section 167 or 169 (26 USC Section 167 or 169).

(b) The protection from more stringent standards of performance afforded by paragraph (a) of this subsection does not apply to:

1. Additional or more stringent permit conditions which are not technology based; for example, conditions based on water quality standards, or toxic effluent standards or prohibitions under CWA Section 307(a) (33 USC Section 1317 (a)); or

2. Additional permit conditions in accordance with 401 KAR 5:065, Section 2(5) controlling toxic pollutants or hazardous substances which are not controlled by new source performance standards. This includes permit conditions controlling pollutants other than those identified as toxic pollutants or hazardous substances when control of these pollutants has been specifically identified as the method to control the toxic pollutants or hazardous substances.

Section 6.]

Toxic Pollutants. References throughout **401 KAR Chapter 5** **[~~the KPDES administrative regulations, 401 KAR 5:002 through 5:300,~~]** establish [~~specific~~] requirements for discharges of toxic pollutants. Subsections (1) through (66) identify [~~The following listing identifies~~] those toxic pollutants that shall [~~required to~~] be considered for each of these KPDES requirements. [~~:~~]

(1) Acenaphthene.

(2) Acrolein.

(3) Acrylonitrile.

(4) Aldrin or dieldrin.

(5) Antimony and compounds.

(6) Arsenic and compounds.

(7) Asbestos.

(8) Benzene.

(9) Benzidine.

(10) Beryllium and compounds.

(11) Cadmium and compounds.

(12) Carbon tetrachloride.

(13) Chlordane (technical mixture and metabolites).

(14) Chlorinated benzenes (other than dichloro-benzenes).

(15) Chlorinated ethanes (including 1,2-dichloroethane, 1,1,1-trichloroethane, and hexachloroethane).

(16) Chloroalkyl ethers (**including** chloromethyl, chloroethyl, and mixed ethers).

(17) Chlorinated naphthalene.

(18) Chlorinated phenols (other than those listed elsewhere; **including** **[~~includes~~]**

trichlorophenols and chlorinated cresols).

(19) Chloroform.

(20) 2-chlorophenol.

(21) Chromium and compounds.

(22) Copper and compounds.

(23) Cyanides.

(24) DDT and metabolites.

(25) Dichlorobenzenes (**including** 1,2-, 1,3-, and 1,4- dichlorobenzenes).

(26) Dichlorobenzidine.

(27) Dichloroethylenes (**including** 1,1- and 1,2-dichloroethylene).

(28) 2,4-dichlorophenol.

(29) Dichloropropane and dichloropropene.

(30) 2,4-dimethylphenol.

(31) Dinitrotoluene.

(32) Diphenylhydrazine.

(33) Endosulfan and metabolites.

(34) Endrin and metabolites.

(35) Ethylbenzene.

(36) Fluoranthene.

(37) Haloethers (other than those listed elsewhere; **including [~~includes~~]** chlorophenylphenyl ether, bromophenylphenyl ether, bis(dischloroisopropyl) ether, bis(chloroethyoxy) methane**,** and polychlorinated diphenyl ethers).

(38) Halomethanes (other than those listed elsewhere; **including [~~includes~~]** methylene chloride

methylchloride, methyl-bromide, bromoform, dichlorobromomethane, trichlorofluoromethane, **and** di-chlorodifluoromethane).

(39) Heptachlor and metabolites.

(40) Hexachlorobutadiene.

(41) Hexachlorocyclohexane (all isomers).

(42) Hexachlorocyclopentadiene.

(43) Isophorone.

(44) Lead and compounds.

(45) Mercury and compounds.

(46) Naphthalene.

(47) Nickel and compounds.

(48) Nitrobenzene.

(49) Nitrophenols (including 2,4-dinitrophenol, **and** dinitrocresol).

(50) Nitrosamines.

(51) Pentachlorophenol.

(52) Phenol.

(53) Phthalate esters.

(54) Polychlorinated biphenyls (PCBs).

(55) Polynuclear aromatic hydrocarbons (including benzanthracenes, benzopyrenes, benzofluoranthene, chrysenes, dibenzanthracenes, and indenopyrenes).

(56) Selenium and compounds.

(57) Silver and compounds.

(58) 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD).

(59) Tetrachloroethylene.

(60) Thallium and compounds.

(61) Toluene.

(62) Toxaphene.

(63) Trichloroethylene.

(64) Vinyl chloride.

(65) Zinc and compounds.

(66) The term "compounds" shall include organic and inorganic compounds.

Section 8. The level of effluent quality attainable through the application of secondary or equivalent treatment shall be as established in:

(1) 40 C.F.R. 133.100**, effective July 1, 2008**;

(2) 40 C.F.R. 133.101**, effective July 1, 2008**;

(3) 40 C.F.R. 133.102**, effective July 1, 2008**;

(4) 40 C.F.R. 133.103**, effective July 1, 2008**;

(5) 40 C.F.R. 133.104**, effective July 1, 2008**; and

(6) 40 C.F.R. 133.105**, effective July 1, 2008**.

Section 9. Modifications, Exceptions, and Additions to Cited Federal Regulations.

(1) "Waters of the United States" shall be modified to "Waters of the Commonwealth" in the federal regulations cited in Sections 1 through 8 of this administrative regulation;

(2) "Director" shall be modified to "cabinet" if the **authority to administer [~~cabinet has delegated authority in~~]** the federal regulations cited in Sections1 through 8 of this administrative regulation **has been delegated to the cabinet**;

(3) "NPDES" shall be modified to "KPDES" if the **authority to administer [~~cabinet has~~**

~~delegated authority in~~] the federal regulations cited in Sections 1 through 8 of this administrative regulation **has been delegated to the cabinet**; and

(4) The notification requirements related to applications for a thermal variance shall be modified to add the notification of interstate agencies in 40 C.F.R. 125.72 (d) **, effective July 1, 2008**.

401 KAR 5:080 “Criteria and standards for the Kentucky Pollutant Discharge Elimination System.” (Amended After Comments) approved for promulgation:

Date	Henry “Hank” List, Deputy Secretary, FOR Leonard K. Peters, Secretary Energy and Environment Cabinet

REGULATORY IMPACT ANALYSIS AND TIERING STATEMENT

Administrative Regulation #: 401 KAR 5:080
Contact Person: Peter T. Goodmann, Assistant Director

(1) Provide a brief summary of:

(a) What this administrative regulation does: This administrative regulation establishes the criteria and standards for the KPDES permitting system and provides that any exemptions granted in the issuance of KPDES permits shall be pursuant to 33 U.S.C. 1311, 1312, and 1326(a).

(b) The necessity of this administrative regulation: KRS 224.16-050 authorizes the Cabinet to implement the Federal Water Pollution Control Act of 1977 (PL 95-217). This regulation provides specific requirements for permitting discharges into waters of the Commonwealth. All NPDES delegated states must have compatible state regulations.

(c) How this administrative regulation conforms to the content of the authorizing statutes: This regulation conforms to KRS 224.16-150 which authorizes the Environmental and Public Protection Cabinet to implement the Federal Water Pollution Control Act. This regulation is consistent with the pollution prevention goals of KRS Chapter 224.

(d) How this administrative regulation currently assists or will assist in the effective administration of the statutes: The administrative regulation assists in the administration of KRS 224.16-050 by providing specific standards, criteria, schedules of compliance, and requirements for variances.

(2) If this is an amendment to an existing administrative regulation, provide a brief summary of:

(a) How the amendment will change this existing administrative regulation: This amendment will clarify that the cabinet must notify interstate agencies of a variance to permit limitations. This amendment further clarifies secondary treatment standards for publicly owned treatment works by explicitly citing the standards rather than referring to the Clean Water Act sections from which the standards are derived. This amendment also revises ambiguous terms in accordance with KRS 13A, provides federal citations, and strikes the federal language reproduced in the body of the state administrative regulation. Amendments were made after comments to insert effective dates for each of the citations to federal regulations.

(b) The necessity of the amendment to this administrative regulation: It is necessary to amend this regulation to clarify that the cabinet shall notify an interstate agency of variances granted by the cabinet.

(c) How the amendment conforms to the content of the authorizing statutes: This amendment conforms to KRS 224.16-150 which authorizes the cabinet to implement the Federal Water Pollution Control Act. This amendment conforms to KRS 224.18-100 authorizing interstate environmental compacts.

(d) How the amendment will assist in the effective administration of the statutes: The amendment clarifies that the cabinet has responsibility to notify an interstate agency of proposed variances.

(3) List the type and number of individuals, businesses, organizations, or state and local governments affected by this administrative regulation: This amendment affects individuals,

businesses, and organizations that are engaged in the regulated disposal of treated wastewater under the KPDES permitting program. This regulation affects over 10,000 existing permitted entities including individuals, businesses and governmental organizations. After analysis of the current types of permits, the regulation is expected to impact the following number of entities:

a. Individuals: The number of permits issued to an individual under this regulation other than for a business or organization is insignificant.
b. Businesses: 1600 per year, primarily through industrial permits, non-public entity sanitary wastewater permits, and stormwater coverage issuances.
c. Organizations: 100 per year, primarily through individual sanitary permits issued to non-public organizations such as churches, summer camps, and private social or sporting clubs.
d. State or Local Government: 30 per year, primarily through permits for Public-Owned Treatment Works (POTWs).

(4) Provide an analysis of how the entities identified in question (3) will be impacted by either the implementation of this administrative regulation, if new, or by the change, if it is an amendment, including:

(a) List the actions that each of the regulated entities identified in question (3) will have to take to comply with this administrative regulation or amendment: The regulated entities will have to comply with permit conditions and limitations of interstate agencies. This change should cause very little additional impact because Kentucky's standards are typically more stringent than or as stringent as interstate agency standards.

(b) In complying with this administrative regulation or amendment, how much will it cost each of the entities identified in question (3): There is no expected increase in cost to those entities identified in question (3).

(c) As a result of compliance, what benefits will accrue to the entities identified in question (3): Regulated entities will not be confused by potential authority gaps arising between state and federal regulations as applied in interstate waters, nor will there be confusion about the responsibility of the cabinet to notify interstate agencies of variances proposed by the cabinet.

(5) Provide an estimate of how much it will cost the administrative body to implement this administrative regulation:

(a) Initially: No additional burden is anticipated.

(b) On a continuing basis: No additional burden is anticipated.

(6) What is the source of the funding to be used for the implementation and enforcement of this administrative regulation? Existing permit fees, General Funds, and EPA Funds. There is no change in source of funding because of this amendment.

(7) Provide an assessment of whether an increase in fees or funding will be necessary to implement this administrative regulation, if new, or by the change if it is an amendment: No fee or funding increases will be necessary because of this amendment.

(8) State whether or not this administrative regulation established any fees or directly or indirectly increased any fees: This amendment does not directly or indirectly affect fees.

(9) TIERING: Is tiering applied? (Explain why or why not) The federal regulations provide tiered regulatory requirements through the identification of classes of industrial users, through specific requirements of POTWs, and through requirements for specific categories of dischargers. Program requirements and limitations depend upon the size and the specific category of the user. To the extent that corresponding federal regulations provide for tiering, these amendments are tiered.

FISCAL NOTE ON STATE OR LOCAL GOVERNMENT

Regulation #: 401 KAR 5:080 **Contact Person:** Peter T. Goodmann, Assistant Director

1. **Does this administrative regulation relate to any program, service, or requirements of a state or local government (including cities, counties, fire departments, or school districts)?**
   Yes __X__ No _____
   If yes, complete questions 2-4.

2. **What units, parts or divisions of state or local government (including cities, counties, fire departments, or school districts) will be impacted by this administrative regulation?**
   This administrative regulation affects all units of state or local government that have a KPDES discharge permit. The portion of the proposed amendment related to notification of interstate agencies affects only those who discharge into waters bordering other states**.**

3. **Identify each state or federal statute or federal regulation that requires or authorizes the action taken by the administrative regulation.**
   The Clean Water Act and KRS 224

4. **Estimate the effect of this administrative regulation on the expenditures and revenues of a state or local government agency (including cities, counties, fire departments, or school districts) for the first full year the administrative regulation is to be in effect.**
   This regulation is expected to affect approximately thirty state or local government agencies per year as wastewater permits are issued or re-issued. The amendment of 401 KAR 5:080 requires the cabinet to notify an interstate agency if an applicant requests a variance from the effluent standards. This notification will not have a significant impact upon state agency expenditures.
   (a) How much revenue will this administrative regulation generate for the state or local government (including cities, counties, fire departments, or school districts) for the first year? This amendment is not expected to generate additional state or local government revenue.
   (b) How much revenue will this administrative regulation generate for the state or local government (including cities, counties, fire departments, or school districts) for subsequent years? None
   (c) How much will it cost to administer this program for the first year? No additional cost is expected
   (d) How much will it cost to administer this program for subsequent years? No additional cost is expected

Note: If specific dollar estimates cannot be determined, provide a brief narrative to explain the fiscal impact of the administrative regulation.

Revenues (+/-):
Expenditures (+/-):
Other Explanation:

FEDERAL MANDATE ANALYSIS COMPARISON

Administrative Regulation#: 401 KAR 5:080
Contact Person: Peter T. Goodmann, Assistant Director

1. **Federal statute or regulation constituting the federal mandate.**
   40 CFR 122 and U.S.C. 1251-1387

2. **State compliance standards.**
   KRS 224.16-050, 224.18-100

3. **Minimum or uniform standards contained in the federal mandate.** The federal standard requires that primacy states meet or exceed the federal requirements for water pollution prevention developed under the Clean Water Act, as Amended (33 U.S.C. 1251-1387).

4. **Will this administrative regulation impose stricter requirements, or additional or different responsibilities or requirements than those required by the federal mandate?**
   No.

5. **Justification for the imposition of the stricter standard, or additional or different responsibilities or requirements.**